What is claimed is:

1. A method of integrating a hydrogel to an extracellular matrix, comprising the steps of:

(a) providing an exposed extracellular matrix;

(b) priming the extracellular matrix by treating with a priming agent to create a primed extracellular matrix;

(c) adding to the primed extracellular matrix a solution of a polymerizable agent; and

(d) reacting the primed extracellular matrix and polymerizable agent to create a hydrogel covalently bound to the extracellular matrix.

2. The method of claim 1, wherein:

said extracellular matrix comprises a plurality of tyrosine residues,

said priming step comprises oxidizing said extracellular matrix,

said priming agent comprises an oxidizing agent,

said primed extracellular matrix comprises a plurality of tyrosyl radicals,

said polymerizable agent comprises an acrylate group reactable with said tyrosyl radicals, and

said reacting step comprises binding said polymerizable agent to the tyrosyl radicals and crosslinking said polymerizable agent.

3. The method of claim 2, wherein said extracellular matrix is disposed in a living body.

4. The method of claim 3, wherein said body is that of a mammal.

5. The method of claim 4, wherein said body is that of a human.

6. The method of claim 3, wherein said providing step comprises treating said extracellular matrix with chondroitinase ABC.

7. The method of claim 2, wherein said extracellular matrix comprises a collagen.

8. The method of claim 7, wherein said collagen is disposed in a cartilage.

9. The method of claim 2, wherein said oxidizing agent comprises a hydrogen peroxide solution.

10. The method of claim 2, wherein said priming step further includes exposing said extracellular matrix and said polymerizable agent to a source of electromagnetic radiation.

11. The method of claim 2, wherein said source of electromagnetic radiation is a source of ultraviolet light.

12. The method of claim 2, wherein said polymerizable agent has at least one free radical polymerizable group selected from the group consisting of an of an acrylate, a diacrylate, oligoacrylate, dimethacrylate, and oligomethacrylate.

13. The method of claim 2, wherein said reacting step comprises exposing said extracellular matrix and said polymerizable agent to a source of ultraviolet radiation.

14. The method of claim 2, wherein said reacting step comprises using a redox initiator.

15. The method of claim 2, wherein said reacting step comprises an ionic crosslinking reaction.

16. The method of claim 2, wherein said reacting step comprises an enzymatic crosslinking reaction.

17. The method of claim 2, wherein said method is carried out transdermally.

18. The method of claim 2, wherein a diffusible drug substance is added with said polymerizable agent.

19. The method of claim 2, wherein a plurality of living cells are added with said polymerizable agent.

20. The method of claim 2, whereby a solid repair in a tissue is created.

21. A hydrogel produced by the method comprising the following steps:

(e) providing an exposed extracellular matrix;

(f) priming the extracellular matrix by treating with a priming agent to create a primed extracellular matrix;

(g) adding to the primed extracellular matrix a solution of a polymerizable agent; and

(h) reacting the primed extracellular matrix and polymerizable agent to create a hydrogel covalently bound to the extracellular matrix; wherein

said extracellular matrix comprises a plurality of tyrosine residues, said priming step comprises oxidizing said extracellular matrix,said priming agent comprises an oxidizing agent, said primed extracellular matrix comprises a plurality of tyrosyl radicals, said polymerizable agent comprises an acrylate group reactable with said tyrosyl radicals, and said reacting step comprises binding said polymerizable agent to the tyrosyl radicals and crosslinking said polymerizable agent.

22. A hydrogel covalently bound to an extracellular matrix at a plurality of tyrosine residues of said matrix.

23. A hydrogel in accordance with claim 22, wherein said extracellular matrix is composed of a plurality of collagen fibers in a cartilage matrix.

24. A method of forming a hydrogel covalently bound to a cartilage tissue, comprising the steps of:

(a) exposing a plurality of tyrosine residues disposed in a plurality of collagen fibers further disposed in a cartilage tissue by treating the tissue with a glycanase to remove a plurality of polysaccharides;

(b) oxidizing the tyrosine residues, by treating with a hydrogen peroxide solution and a source of ultraviolet light, to produce a plurality of tyrosyl groups in the collagen;

(c) adding a polymerizable agent comprising one or more acrylate groups; and

(d) reacting the tyrosyl groups and the polymerizable agent to create a hydrogel covalently bound to the collagen.

25. The method of claim 1, wherein:

said extracellular matrix comprises a plurality of amino groups,

said priming agent comprises a compound with an aldehyde group and a carrier compound with an amino group,

said priming step comprises reacting said priming agent with said extracellular matrix to covalently bind said extracellular matrix and said priming agent,

said primed extracellular matrix consists of said extracellular matrix covalently bound to said priming agent, and

said reacting step consists of covalently binding said polymerizable agent to said primed extracellular matrix and crosslinking said polymerizable agent.

26. The method of claim 25, wherein said extracellular matrix is disposed in a living body.

27. The method of claim 26, wherein said body is that of a mammal.

28. The method of claim 27, wherein said body is that of a human.

29. The method of claim 25, wherein said polymerizable agent has at least one free radical polymerizable group selected from the group consisting of an of an acrylate, a diacrylate, oligoacrylate, dimethacrylate, and oligomethacrylate.

30. The method of claim 25, wherein said reacting step comprises exposing said extracellular matrix and said polymerizable agent to a source of ultraviolet radiation.

31. The method of claim 25, wherein said reacting step comprises using a redox initiator.

32. The method of claim 25, wherein said reacting step comprises an ionic crosslinking reaction.

33. The method of claim 25, wherein said reacting step comprises an enzymatic crosslinking reaction.

34. The method of claim 25, wherein said method is carried out transdermally.

35. The method of claim 25, wherein a diffusible drug substance is added with said polymerizable agent.

36. The method of claim 25, wherein a plurality of living cells are added with said polymerizable agent.

37. The method of claim 25, whereby a solid repair in a tissue is created.

38. A hydrogel produced by the method comprising the following steps:

(e) providing an exposed extracellular matrix;

(f) priming the extracellular matrix by treating with a priming agent to create a primed extracellular matrix;

(g) adding to the primed extracellular matrix a solution of a polymerizable agent; and

(h) reacting the primed extracellular matrix and polymerizable agent to create a hydrogel covalently bound to the extracellular matrix; wherein,

said extracellular matrix comprises a plurality of amino groups, said priming agent comprises a compound with an aldehyde group and a carrier compound with an amino group, said priming step comprises reacting said priming agent with said extracellular matrix to covalently bind said extracellular matrix and said priming agent, said primed extracellular matrix consists of said extracellular matrix covalently bound to said priming agent, and said reacting step consists of covalently binding said polymerizable agent to said primed extracellular matrix and crosslinking said polymerizable agent.

39. A hydrogel covalently bound via a priming agent to an extracellular matrix at a plurality of amino groups in said extracellular matrix.